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EXAMINER	
TRAN, QUOC A	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/590,791	HEUER ET AL.	
	Examiner	Art Unit	
	Quoc A. Tran	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23 and 25-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23 and 25-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10 2007 009 617.1 dated 02/27/2004.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/25/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is **a Non Final** Office Action in response to the Applicant's Preliminary Amendment filed 08/25/2006, Applicant amended the Specification, also applicant amended claims 1-23, cancelled claim 24 and added new claims 25-27. Claim 1 is independent claim; Priority of Germany No 10 2004 009 617.1 dated ***02/27/2004*** (Siemens).

Information Disclosure Statement

A signed and dated copy of applicant's IDS, which was filed on 08/25/2006, is attached to this Office Action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21-23 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 21-23 and 27:

Claims 21-23 and 27 recite a "*coding device*" and "*decoding device*" for coding and decoding XML-based document such MPEG-7 utilizing instances of schemas/namespaces. The Examiner notes the disclosure of the present invention

expressly states "*a coding device and a decoding device to implement the inventive coding and/or decoding method. An example embodiment of the invention also includes a coding and decoding device, with which an embodiment of the inventive coding method and an embodiment of the inventive decoding method can be implemented"* see Specification → Page 11, Paragraph [0039]. The Examiner interprets **coding device** and **decoding device** described herein **may be performed in** either **hardware** or **software**, since it is not clearly define the separation of either hardware or software**.** Thus, for purposes of examination, the examiner interprets the recited "*coding device*" and "*decoding device*" for coding and decoding XML-based document such MPEG-7 utilizing instances of schemas/namespaces to comprise only computer software. Accordingly, the "*coding device*" and "*decoding device*"" recited in Claim(s) 21-23 and 27 is software *per se*.

In the interest of compact prosecution, the application is further examined against the prior art, as stated below, upon the assumption that the applicants may overcome the above stated rejections under 35 U.S.C. 101.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed Cir 1993). *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969);

Claim(s) claims 1-23 and 25-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-19 of Pending U.S. Patent Application No. 10/564,601 filed 07/02/2004, Publication No US 20060212796A1 which was published on 09/21/2006. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are both exhibiting similar method for coding a structure document uses the inheriting relationship of its namespace/schema.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-23 and 25-27, of current application and Pending U.S. Patent Application No. 10/564,601 are compared as follows, showing the obviousness of the teachings of the patent to the claimed invention:

Current Application	**US Application 10/564,601**
Claims 1-23 and 25-27:	**Claims 11-19:**
A method for coding a structured, document, comprising: [claim 1] generating a plurality of codes using at least one namespace and allocating the plurality of codes for types defined by : carried out, for each namespace, an assignment to further namespace such that at least one assignment information is generated such that at least one inheritance relationship is described between inheriting namespace and bequeathing name spaces; [see	A method for coding a structured document, comprising the steps of: [see claim 11] generating a plurality of codes using a plurality of namespaces comprising data types; defining elements in one or more namespaces; assigning independent codes for at least one namespace having defined elements, wherein the independent codes are generated from other namespaces; wherein the independent codes within a given namespace are assigned for data

claim 1] and forming the assignment information of the inheriting name space from a list of codes of the basic types of header types of the inheriting name space, with basic types being types from which the header type originates directly or from which a header type originates, which in turn is the basic type of a header type of the inheriting name space [claim 1]	types comprising the following steps: [see claim 11] sorting data types of a namespace, which have been inherited from data types of other namespaces, in a list according to global TypeCodes of the respective basic data types, wherein the data types include the data types in other namespaces from which the sorted data types have been inherited; sorting lexicographically data types of a namespace which have been inherited from a specified basic data type of a specific other namespace; sorting the data types of a namespace which have not been inherited from a data type of another namespace into the existing list of data types; assigning the independent codes in the order of the list to the data types of the namespace [see claim 11]
Claims 2-23 and 25-27	Claims 11-19

Claims Rejection – 35 U.S.C. 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Seyrat et al.,** (US 20040068696A1 filed 02/04/2002) [hereinafter "Seyrat"], in view of **Mory et al.,** (US 20020138517A1 filed 10/17/2001) [hereinafter "Mory"].

Regarding ***independent claim 1***, Seyrat teaches:

A method for coding a structured, document, comprising:

(At Fig. 2 and Page 4 Paragraph 90→ Seyrat discloses this limitation that is a MPEG-7 (item 10) comprises a schema compilator (item 11) designed to receive and process schemas (item 9) such as XML schemas [i.e., namespace- see the applicant 's disclosure at Page 2 Paragraph [0007]], in order to obtain a binary syntax code (item 13) [i.e., coding] that is executed to decode encoded documents 7 [i.e., coding a structure] that are applied in input of the decoder 10, the latter providing in output decoded documents 8 in format XML for example.)

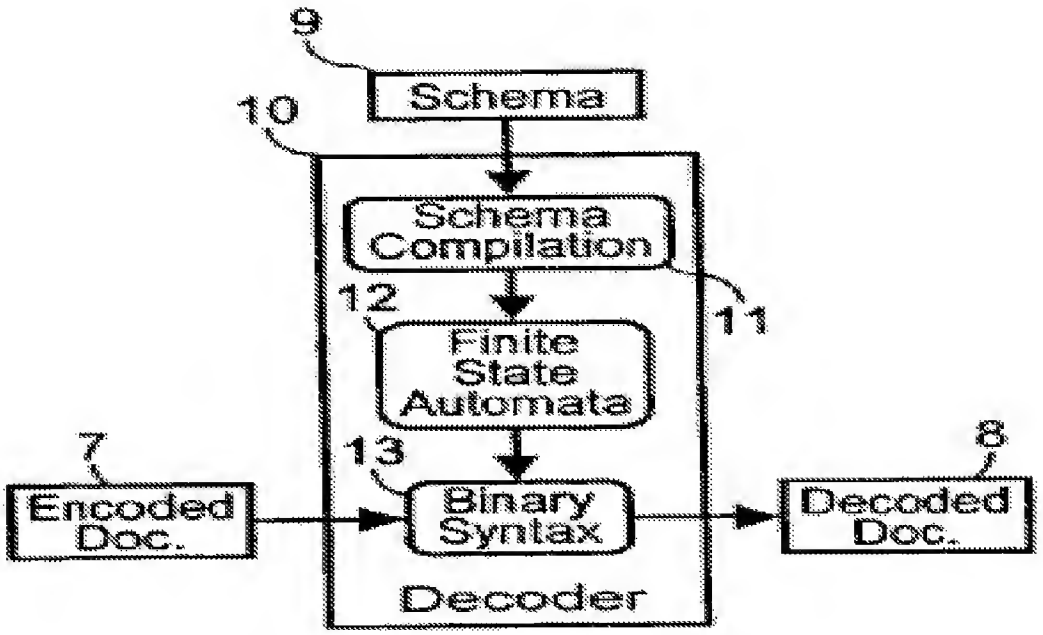

Fig. 2

and allocating the plurality of codes for types defined by ; carried out, for each namespace, an assignment to further namespace such that at least one assignment information is generated such that at least one inheritance relationship is described between inheriting namespace and bequeathing name spaces,

(See Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93, Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema and the schema realization of flattening the type inheritances and in solving the Namespace supported. Also Seyrat further disclose encoding the document using said first and second schemas into a binary stream comprising for each elements

of the document a binary sequence encoding the element, and inserting in the binary sequence encoding the derived element a reference designating the first schema in which the structure of the derived element is defined, said reference designating the first schema being defined in a schema reference list containing references to all schemas used for encoding the document, the schema reference list being made accessible to the decoder. This generally is disclosed at the [Abstract of Seyrat].

In addition, Seyrat does not expressly teach, but Mory teaches:

generating a plurality of codes using at least one namespace

(See Page 3 Paragraph 55 → Page 5 Paragraph 85, Mory illustrates in Example 3 [i.e., plurality of codes] the coding of XML schema being generated based upon the Element Declaration of Table 1-->Table 3 that allows stating the unique and unambiguous numbering of all possible instances of the xml schema [0053], also Mory illustrates in ARRAY 1 [0085] an example of an instance of the schema which described in Example 3 [0060], which is one of the plurality of instances of schema as shown in Example 3 Paragraph [0060].)

This allows binary format for MPEG-7 instances [the Title]. This interpretation is supported by the applicant's specification and drawing, which is stated, "*XML schema definition are known…. schema A is defined in the upper part, as shown by a curly bracket, and on the other hand a schema X is defined in the lower part, similarly shown by a curly bracket. The schema X in turn uses data types, which have been imported from the schema A*" see disclosure at [Fig. 2a and Fig. 2b and Paragraph [0042] Pages

12-13]. Therefore, the artisan would have well appreciated that Mory's method of binary format for MPEG-7 instances based upon XML schema being generated based upon the Element Declaration which is stated the unique and unambiguous numbering of all possible instances of the schema is equivalent to generating a plurality of codes using at least one namespace as cited in independent claim 1.

Accordingly, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Seyrat's method for encoding the XNL document such as MPEG-7 instances based upon XML schema, to includes a means of generating a plurality of codes using at least one namespace as taught by Mory, because Seyrat and Mory are both form the analogous art of encoding and decoding of XML documents such as MPEG-7 instances based upon XML schema; to produce predictable result of said more efficient to be processed and less costly to be transmitted utilizing ISO/IEC 15938-1 and more particularly MPEG-7 (Moving Picture Expert Group) particularly designed to deal with highly structured data, such as multimedia data [see Seyrat at Page 1 Paragraph [0008]].

Claim 2,

Seyrat and Mory teach the method of claim 1 and further comprise:

the basis of an inheritance relationship between the name spaces and the inheritance relationships in a name space of the

basic type and the inheritance relationships in the name space of the subset.

(See Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93, Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema and the schema realization of flattening the type inheritances and in solving the Namespace supported. Also Seyrat further disclose encoding the document using said first and second schemas [i.e., subset schema/namespace] into a binary stream comprising for each elements of the document a binary sequence encoding the element, and inserting in the binary sequence encoding the derived element a reference designating the first schema in which the structure of the derived element is defined, said reference designating the first schema being defined in a schema reference list containing references to all schemas used for encoding the document, the schema reference list being made accessible to the decoder. This generally is disclosed at the [Abstract of Seyrat].)

Claim 3,

Seyrat and Mory teach the method of claim 2 and further comprise:

wherein the addressable subset is determined based on an initial basic type by establishing the basic types of the bequeathing name space.

(See the Abstract→Seyrat discloses a schema reference list containing references to all schemas used for encoding the document, the schema reference list being made

accessible to the decoder a schema reference list containing references to all schemas used for encoding the document, the schema reference list being made accessible to the decoder. Also Seyrat further disclose encoding the document using said first and second schemas [i.e., subset schema/namespace] into a binary stream comprising for each elements of the document a binary sequence encoding the element [see the Abstract].

See also Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93, Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema and the schema realization of flattening the type inheritances and in solving the Namespace supported.)

Claim 4,

Seyrat and Mory teach the method of claim 3 and further comprise:

wherein, based on the initial basic type for determining the subset, header types are determined in the inheriting name space, for which basic types are identified from the bequeathing name space by use of the assignment information, the initial basic type being a basic type of the basic types of the bequeathing name space.

(See Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93, Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema and the schema realization of flattening the type inheritances and in solving the Namespace supported. Also Seyrat further disclose encoding the document

using said first and second schemas [i.e., subset schema/namespace] into a binary stream comprising for each element. This generally is disclosed at the [Abstract of Seyrat].

Also see Paragraph 33-34→ Seyrat discloses the schema reference list comprising references to all schemas used for encoding the structured document is inserted in a header associated to the binary stream encoding the structured document, wherein basic types are identified from the committed name space by use of the assignment information.)

Claim 5,

Seyrat and Mory teach the method of claim 1 and further comprise:

wherein the assignment information assigned to the inheriting name spaces is stored together with the respective name space in a first device carrying out at least one of the coding and decoding.

(See Paragraph 33-34→ Seyrat discloses the schema reference list comprising references to all schemas used for encoding the structured document is inserted in a header associated to the binary stream encoding the structured document, wherein basic types are identified from the committed name space by use of the assignment information. Also Seyrat further discloses MPEG-7 (item 10 of Fig. 2) comprises a schema compilator (item 11 of Fig. 2) designed to receive and process schemas (item 9 of Fig. 2) such as XML schemas [i.e., namespace- see the applicant 's disclosure at Page 2 Paragraph [0007]], in order to obtain a binary syntax code (item 13) [i.e., coding]

that is executed to decode encoded documents 7 [i.e., coding a structure] that are applied in input of the decoder 10, the latter providing in output decoded documents 8 in format XML for example.[Fig. 2 and Page 4 Paragraph 90→ Page 5 Paragraph 85].)

Claim 6,

Seyrat and Mory teach the method of claim 5 and further comprise:

wherein the assignment information assigned to the inheriting name spaces is generated in a second device and transmitted together with the respective name space, in a first device carrying out at least one of the coding and decoding.

(See Paragraph 33-34→ Seyrat discloses the schema reference list comprising references to all schemas used for encoding the structured document is inserted in a header associated to the binary stream encoding the structured document, wherein basic types are identified from the committed name space by use of the assignment information. Also Seyrat further discloses MPEG-7 (item 10 of Fig. 2) comprises a schema compilator (item 11 of Fig. 2) designed to receive and process schemas (item 9 of Fig. 2) such as XML schemas [i.e., namespace- see the applicant 's disclosure at Page 2 Paragraph [0007]], in order to obtain a binary syntax code (item 13) [i.e., coding] that is executed to decode encoded documents 7 [i.e., coding a structure] that are applied in input of the decoder 10, the latter providing in output decoded documents 8 in format XML for example.[Fig. 2 and Page 4 Paragraph 90→ Page 5 Paragraph 85]. This allows computer networks, which is the main media for communications.

Computers can now be plugged to a shared network, operating systems allow applications to easily exchange messages, Internet infrastructure allows computers to find their interlocutor, applications use complex algorithms to synchronize themselves [i.e., device to device]. This is generally described at [0004].)

Claim 7,

Seyrat and Mory teach the method of claim 1 and further comprise:

wherein respectively separate codes, which are independent of at least one of other schemas and name spaces, for the elements at least one of defined and declared in at least one of the schemas and name spaces in the groups of at least one of schemas and name spaces, are allocated for at least one of a schema a name space for a group of at least one of schemas and name spaces.

(See Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93, Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema and the schema realization of flattening the type inheritances and in solving the Namespace supported. Also Seyrat further disclose encoding the document using said first and second schemas into a binary stream comprising for each elements of the document a binary sequence encoding the element, and inserting in the binary sequence encoding the derived element a reference designating the first schema in which the structure of the derived element is defined, said reference designating the first schema being defined in a schema reference list containing references to all schemas

used for encoding the document, the schema reference list being made accessible to the decoder. This generally is disclosed at the [Abstract of Seyrat].

Claim 8,

Seyrat and Mory teach the method of claim 7 and further comprise:

wherein, to identify the at least one of schema name space and the group of at least one of schemas and name spaces, the separate codes are sub-divided into corresponding address areas.

(See Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93, Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema and the schema realization of flattening the type inheritances and in solving the Namespace supported. Also Seyrat further disclose encoding the document using said first and second schemas into a binary stream comprising for each elements of the document a binary sequence encoding the element, and inserting in the binary sequence encoding the derived element a reference designating the first schema in which the structure of the derived element is defined, said reference designating the first schema being defined in a schema reference list containing references to all schemas used for encoding the document, the schema reference list being made accessible to the decoder. This generally is disclosed at the [Abstract of Seyrat].

Claim 9,

Seyrat and Mory teach the method of claim 7 and further comprise:

wherein the separate codes respectively comprise a local code at least one of relating to at least one of the schema and the name space and relating to at least one of the group of schemas and name spaces and an identification code to identify at least one of the schema, and name space and the group of at least one of schemas and name spaces.

(See Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93, Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema and the schema realization of flattening the type inheritances and in solving the Namespace supported. Also Seyrat further disclose encoding the document using said first and second schemas into a binary stream comprising for each elements of the document a binary sequence encoding the element, and inserting in the binary sequence encoding the derived element a reference designating the first schema in which the structure of the derived element is defined, said reference designating the first schema being defined in a schema reference list containing references to all schemas used for encoding the document, the schema reference list being made accessible to the decoder. This generally is disclosed at the [Abstract of Seyrat].

Claim 10,

Seyrat and Mory teach the method of claim 7 and further comprise:

wherein the separate codes are generated for at least one of global elements, substitution groups and data types.

(See Page 3 Paragraph 55 → Page 5 Paragraph 85, Mory illustrates in Example 3 [i.e., plurality of codes] the coding of XML schema being generated based upon the Element Declaration of Table 1-->Table 3 that allows stating the unique and unambiguous numbering of all possible instances of the xml schema [0053] (i.e., global elements), also Mory illustrates in ARRAY 1 [0085] an example of an instance of the schema which described in Example 3 [0060], which is one of the plurality of instances of schema as shown in Example 3 Paragraph [0060]. Also see [Paragraph 166] Mori discloses certain primitive data types can imply a large amount of bytes (e.g. free text annotation or movie scripts), that is propose to code the data size using a variable number of bytes.)

Accordingly, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Seyrat's method for encoding the XNL document such as MPEG-7 instances based upon XML schema, to includes a means of generating a plurality of codes using at least one of global elements, substitution groups and data types as taught by Mory, because Seyrat and Mory are both form the analogous art of encoding and decoding of XML documents such as MPEG-7 instances based upon XML schema; to produce predictable result of said more efficient to be processed and less costly to be transmitted utilizing ISO/IEC 15938-1 and more particularly MPEG-7

(Moving Picture Expert Group) particularly designed to deal with highly structured data, such as multimedia data [see Seyrat at Page 1 Paragraph [0008]].

Claim 11,

Seyrat and Mory teach the method of claim 10 and further comprise:

wherein separate codes are generated for data types type codes such that within the inheritance tree of a name space the data type adjacent to a first data type in the same name space is at a code interval in respect of the first data type, said code interval corresponding to the number of data types derived from the first data type in this name space.

(See Page 3 Paragraph 55 → Page 5 Paragraph 85, Mory illustrates in Example 3 [i.e., plurality of codes] the coding of XML schema being generated based upon the Element Declaration of Table 1-->Table 3 that allows stating the unique and unambiguous numbering of all possible instances of the xml schema [0053], also Mory illustrates in ARRAY 1 [0085] an example of an instance of the schema which described in Example 3 [0060], which is one of the plurality of instances of schema as shown in Example 3 Paragraph [0060]. Also see [Paragraph 166] Mori discloses certain primitive data types can imply a large amount of bytes (e.g. free text annotation or movie scripts), that is propose to code the data size using a variable number of bytes.)

Accordingly, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Seyrat's method for encoding the XNL document such as MPEG-7 instances based upon XML schema, to includes a means of generating separate codes for data types type codes such that within the inheritance tree of a name space the data type adjacent to a first data type in the same name space is at a code interval in respect of the first data type, said code interval corresponding to the number of data types derived from the first data type in this name space as taught by Mory, because Seyrat and Mory are both form the analogous art of encoding and decoding of XML documents such as MPEG-7 instances based upon XML schema; to produce predictable result of said more efficient to be processed and less costly to be transmitted utilizing ISO/IEC 15938-1 and more particularly MPEG-7 (Moving Picture Expert Group) particularly designed to deal with highly structured data, such as multimedia data [see Seyrat at Page 1 Paragraph [0008]].

Claim 12,

Seyrat and Mory teach the method of claim 7 and further comprise:

wherein the separate codes within a given name space are allocated according to a method comprising,

(At Fig. 2 and Page 4 Paragraph 90→ Seyrat discloses this limitation that is a MPEG-7 (item 10) comprises a schema compilator (item 11) designed to receive and process schemas (item 9) such as XML schemas [i.e., namespace- see the applicant 's disclosure at Page 2 Paragraph [0007]].)

sorting all data types of a name space, which were bequeathed from data types of other name spaces,

(Seyrat discloses the XML binary syntax code is allocated based upon the inheritance relationship between inheriting schema (i.e., bequeathed) and the schema realization of flattening the type inheritances and in solving the Namespace supported [See Fig. 2-2a and Page 4 Paragraph 90→ Page 5 Paragraph 93].)

in a list in the sequence of global type codes of the respective basic data types as defined in the MPEG-7 standard, the basic data types being the data types in other name spaces, from which the sorted data types were bequeathed; sorting data types of a name space, which were bequeathed from a specific basic data type of a specific other name space, are lexicographically in each instance; sorting all the data types of a name space, which were not bequeathed from a data type of another name space, according to the sequence defined in the MPEG-7 standard into the existing list of data types; and allocating the separate codes in list sequence to the data types of the name spaces.

(At Fig. 2 and Page 4 Paragraph 90→ Seyrat discloses this limitation that is a MPEG-7 (item 10) comprises a schema compilator (item 11) designed to receive and process schemas (item 9) such as XML schemas [i.e., namespace- see the applicant 's

disclosure at Page 2 Paragraph [0007]], in order to obtain a binary syntax code (item 13) [i.e., coding] that is executed to decode encoded documents 7 [i.e., coding a structure] that are applied in input of the decoder 10, the latter providing in output decoded documents 8 in format XML for example. Also Seyrat further discloses encoding the document using said first and second schemas into a binary stream comprising for each elements of the document a binary sequence encoding the element, and inserting in the binary sequence encoding the derived element a reference designating the first schema in which the structure of the derived element is defined, said reference designating the first schema being defined in a schema reference list containing references to all schemas used for encoding the document, the schema reference list being made accessible to the decoder. This generally is disclosed at the [Abstract of Seyrat].

Claim 13,

Claim 13 is fully incorporated similar subject of claim 1 cited above, and are similarly rejected along the same rationale. Thus, Seyrat and Mory disclose every limitation of Claim 13 and provide proper reasons to combine, as indicated in the above rejections for Claim 1.

In addition Seyrat teaches:

Seyrat and Mory teach the method of claim 1 and further comprise:

decoding a document previously coded according to a method as claimed in claim 1,

(At the Abstract→ Seyrat discloses an encoding method for enabling a decoder to decode a structured document having a structure defined in a first schema not accessible to the decoder and resulting from a change of a second schema accessible to the decoder.)

Claim 14,

Seyrat and Mory teach the method of claim 11 and further comprise:

wherein, to decode a binary type code, the code length of the separate codes of the binary type codes is determined from the number of derived data types.

(At the Abstract→ Seyrat discloses an encoding method for enabling a decoder to decode a structured document having a structure defined in a first schema not accessible to the decoder and resulting from a change of a second schema accessible to the decoder.

See also Seyrat at Paragraph 17-18, discloses the binary sequence encoding each element of the document comprises a content field containing an encoded value of the element and a length field placed before the content field and containing an encoded value of a length of the content field, wherein the derived information element is associated in the first schema to a structure type which is restricted with respect to the structure type of the corresponding information element in the second schema, the binary sequence encoding the derived element comprising a content field and

appended to the content field, a reference to the first schema and a reference to the structure type of the derived element, defined in the second schema.)

Claim 15,

Seyrat and Mory teach the method of claim 4 and further comprise:

wherein, to decode a specific type code, the sub-tree of the inheritance tree of the name space, in which the specific type code is located, is determined from the code intervals between adjacent data types.,

(At Paragraph 17-18→ Seyrat discloses the binary sequence encoding each element of the document comprises a content field containing an encoded value of the element and a length field placed before the content field and containing an encoded value of a length of the content field, wherein the derived information element is associated in the first schema to a structure type which is restricted with respect to the structure type of the corresponding information element in the second schema, the binary sequence encoding the derived element comprising a content field and appended to the content field, a reference to the first schema and a reference to the structure type of the derived element, defined in the second schema. Also Seyrat further discloses at fig. 1 and fig. 2 the binary format of a tree structure of a structured document according to MPEG-7 standard and a MPEG-7 decoder.)

Claim 16,

Claim 16 is fully incorporated similar subject of claim 1 cited above, and are similarly rejected along the same rationale. Thus, Seyrat and Mory disclose every limitation of Claim 16 and provide proper reasons to combine, as indicated in the above rejections for Claim 1.

In addition Seyrat teaches:

Decoding an XML-based document,

(At Paragraph [0002]→ Seyrat described a method for encode and decode relates in general to the field of computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language).)

Claim 17,

Claim 17 is fully incorporated similar subject of claim 11 cited above, and are similarly rejected along the same rationale. Thus, Seyrat and Mory disclose every limitation of Claim 17 and provide proper reasons to combine, as indicated in the above rejections for Claim 113.

In addition Seyrat teaches:

a method for decoding an XML-based document comprising:

(At Paragraph [0002]→ Seyrat described a method for encode and decode relates in general to the field of computer systems, and more particularly to a method and system

for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language).

wherein, to decode a binary type code, the code length of the separate codes of the binary type codes is determined from the number of derived data types,

(At Paragraph 17-18, discloses the binary sequence encoding each element of the document comprises a content field containing an encoded value of the element and a length field placed before the content field and containing an encoded value of a length of the content field, wherein the derived information element is associated in the first schema to a structure type which is restricted with respect to the structure type of the corresponding information element in the second schema, the binary sequence encoding the derived element comprising a content field and appended to the content field, a reference to the first schema and a reference to the structure type of the derived element, defined in the second schema.)

Claim 18,

Claim 18 is fully incorporated similar subject of claim 11 cited above, and are similarly rejected along the same rationale. Thus, Seyrat and Mory disclose every limitation of Claim 17 and provide proper reasons to combine, as indicated in the above rejections for Claim 11.

In addition Seyrat teaches:

a method for decoding an XML-based document comprising:

(At Paragraph [0002]→ Seyrat described a method for encode and decode relates in general to the field of computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language).

wherein, to decode a specific type code, the sub-tree of the inheritance tree of the name space, in which the specific type code is located, code length is determined from the code intervals between adjacent data types.,

(At Paragraph 17-18, discloses the binary sequence encoding each element of the document comprises a content field containing an encoded value of the element and a length field placed before the content field and containing an encoded value of a length of the content field, wherein the derived information element is associated in the first schema to a structure type which is restricted with respect to the structure type of the corresponding information element in the second schema, the binary sequence encoding the derived element comprising a content field and appended to the content field, a reference to the first schema and a reference to the structure type of the derived element, defined in the second schema.

Also Seyrat further discloses at fig. 1 and fig. 2 the binary format of a tree structure of a structured document according to MPEG-7 standard and a MPEG-7 decoder.)

Claim 19,

Claim 19 is fully incorporated similar subject of claim 11 cited above, and are similarly rejected along the same rationale. Thus, Seyrat and Mory disclose every limitation of Claim 17 and provide proper reasons to combine, as indicated in the above rejections for Claim 11.

In addition Seyrat teaches:

a method for decoding an XML-based document comprising:

(At Paragraph [0002]→ Seyrat described a method for encode and decode relates in general to the field of computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language).

wherein, to determine the basic types, which originate from an initial basic type, code length is determined from the code intervals between adjacent data types.

(At Paragraph 17-18, discloses the binary sequence encoding each element of the document comprises a content field containing an encoded value of the element and a

length field placed before the content field and containing an encoded value of a length of the content field, wherein the derived information element is associated in the first schema to a structure type which is restricted with respect to the structure type of the corresponding information element in the second schema, the binary sequence encoding the derived element comprising a content field and appended to the content field, a reference to the first schema and a reference to the structure type of the derived element, defined in the second schema.)

Claim 20,

Claim 19 is fully incorporated similar subject of claim 11 cited above, and are similarly rejected along the same rationale. Thus, Seyrat and Mory disclose every limitation of Claim 17 and provide proper reasons to combine, as indicated in the above rejections for Claim 11.

In addition Seyrat teaches:

a method for decoding an XML-based document comprising:

(At Paragraph [0002]→ Seyrat described a method for encode and decode relates in general to the field of computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language).

wherein, to determine the number of types in the subset, code length is determined based on the header types from the code intervals between adjacent header types.

(at Paragraph [0033]→ Seyrat discloses the schema reference list comprising references to all schemas used for encoding the structured document is inserted in a header associated to the binary stream encoding the structured document.

Also at Paragraph 17-18, discloses the binary sequence encoding each element of the document comprises a content field containing an encoded value of the element and a length field placed before the content field and containing an encoded value of a length of the content field, wherein the derived information element is associated in the first schema to a structure type which is restricted with respect to the structure type of the corresponding information element in the second schema, the binary sequence encoding the derived element comprising a content field and appended to the content field, a reference to the first schema and a reference to the structure type of the derived element, defined in the second schema.)

Claim 21,

Claim 21 recites a coding device configured to perform the method of claim 1. Thus, Seyrat and Mori disclose every limitation of Claim 21 and provide proper reasons to combine, as indicated in the above rejections for Claim 1-Also see Seyrat at [0002], discloses a computer systems, and more particularly to a method and system for the compression of structured documents using

document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language). Such documents may contain multimedia information. Also Seyrat further discloses at fig. 1 and fig. 2 the binary format of a tree structure of a structured document according to MPEG-7 standard and a MPEG-7 decoder and encoder.)

Claim 22,

Claim 22 recites a coding device configured to perform the method of claim 13. Thus, Seyrat and Mori disclose every limitation of Claim 22 and provide proper reasons to combine, as indicated in the above rejections for Claim 13-Also see Seyrat at [0002], discloses a computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language). Such documents may contain multimedia information. Also Seyrat further discloses at fig. 1 and fig. 2 the binary format of a tree structure of a structured document according to MPEG-7 standard and a MPEG-7 decoder and encoder.)

Claim 23,

Claim 23 recites a coding and decoding device configured to perform the method of claim 21. Thus, Seyrat and Mori disclose every limitation of Claim 23 and provide proper reasons to combine, as indicated in the above rejections for Claim 21-Also see Seyrat at [0002], discloses a computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language). Such documents may contain multimedia information. Also Seyrat further discloses at fig. 1 and fig. 2 the binary format of a tree structure of a structured document according to MPEG-7 standard and a MPEG-7 decoder and encoder.)

Claims 25-26, Seyrat teaches:

a method for coding and decoding an XML-based document comprising:

(At Paragraph [0002]→ Seyrat described a method for encode and decode relates in general to the field of computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language).

Claim 27,

Claim 27 recites a coding and decoding device configured to perform the method of claim 22. Thus, Seyrat and Mori disclose every limitation of Claim 27 and provide proper reasons to combine, as indicated in the above rejections for Claim 22-Also see Seyrat at [0002], discloses a computer systems, and more particularly to a method and system for the compression of structured documents using document descriptions that conforms to a generalized markup language, such as SGML (Standard Generalized Markup Language) and XML (Extensible Markup Language). Such documents may contain multimedia information. Also Seyrat further discloses at fig. 1 and fig. 2 the binary format of a tree structure of a structured document according to MPEG-7 standard and a MPEG-7 decoder and encoder.)

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc A. Tran whose telephone number is 571-272-8664. The examiner can normally be reached on Mon through Fri 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on (571)272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quoc A. Tran/
Examiner, Art Unit 2176

/Doug Hutton/
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